



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,739	05/12/2005	Manfred A. Lupke	SWH-11889US	9002

7590

06/27/2006

Dennison Associates
Suite 301
133 Richmond Street West
Toronto, ON M5H 2L7
CANADA

EXAMINER

LEYSON, JOSEPH S

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary	Application No.	Applicant(s)	
	10/534,739	LUPKE ET AL.	
	Examiner	Art Unit	
	Joseph Leyson	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-11 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the water supply for adding water to the air moved internally of the pipe by the air moving member, as recited by claim 11. Note that the specification (p. 8, lines 9-15) discloses adding moisture to the make-up air which is introduced from the downstream end of the mold tunnel (NOT to the air moved internally of the pipe by the air moving member). No new matter should be entered.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

Art Unit: 1722

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 11.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 1722

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 76.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "81" has been used to designate both die equipment (p. 7, line 13) and moisture (p. 8, line 13). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of

Art Unit: 1722

any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claim 9 is objected to because of the following informalities: in claim 9, line 4, "a an" should be changed to --an--, for proper idiomatic language. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The metes and bounds of claim 7 cannot be understood because claim 7 recites "said transfer member" and "the cooling plug" which lack antecedent basis making unclear to what they refer.

The metes and bounds of claim 9 cannot be understood because claim 9 recites "said transfer member" and "said cooling plug" which lack antecedent basis making unclear to what they refer. In claim 9, line 3, --said-- should be inserted after "with" for antecedent basis clarity.

The metes and bounds of claim 10 cannot be understood because claim 10 recites "said transfer member" and "said cooling plug" which lack antecedent basis making unclear to what they refer. Claim 10 recites "send flow channel delivery water

Art Unit: 1722

under pressure from a source ... to said water turbine" which cannot be clearly understood. The examiner assumes that "send" should be --said-- and that "delivery" should be delivering. If such assumption is correct, the changes must be made to clarify the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lupke et al. (U.S. Patent 5,525,289) in view of Lupke (U.S. Patent 4,500,284) and Thelin (U.S. Patent 4,897,093).

Lupke et al. (U.S. Patent 5,525,289) disclose an extruding apparatus which extrudes a length of hollow plastic product P, the apparatus including an extruder which

Art Unit: 1722

feeds molten plastic through die equipment 63 to a mold tunnel formed by side by side moving mold blocks, the plastic product being shaped within the mold tunnel (i.e., fig. 6; col. 2, lines 31-45; col. 4, lines 9-11), the apparatus including a cooling plug 67 and means to provide air turbulence to assist in setting the shape of the product (col. 4, lines 9-57), the means including a powered air moving member or blower 66 (shown as a rotor and rotary shaft in fig. 6) which is located internally of the product in the mold tunnel. However, Lupke et al. (U.S. Patent 4,510,013) does not expressly disclose a power source for powering the air moving member, the power source being located externally of the mold tunnel, or a power transfer which feeds from the power source through the die equipment to the air moving member.

Lupke (U.S. Patent 4,500,284) discloses that equipment (such as a cutter 40) in a mold tunnel 20 for forming a pipe can be powered by external means (such as control unit 58) and that power transfer means (such as line 56 and air cylinder 54) from the external power means to the equipment can be located through die equipment and through a core plug 35 (i.e., see fig. 1). Note that the pipe can be vacuum formed (i.e., col. 2, lines 35-40) which is notoriously well known in the art.

Thelin (U.S. Patent 4,897,093) disclose a blower including a rotor 24, power transfer means to the rotor including a rotary shaft 26, a motor 20, and an electrical power cord 22, and power plug 30 for plugging into an external power source.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the blower of Lupke et al. (U.S. Patent 5,525,289) to have a rotary shaft, a motor and an electrical power cord because such a modification is

Art Unit: 1722

notoriously well know and conventional in the blower art for providing power transfer means as disclosed by Thelin (U.S. Patent 4,897,093), and to further modify the apparatus by locating the power transfer means through the die equipment and through the cooling plug to be able to receive power externally of the mold tunnel because such a modification would enable equipment (the blower) in the mold tunnel to be powered as disclosed by Lupke (U.S. Patent 4,500,284). As to the motor being coupled to the rotor in the mold tunnel as recited by instant claim 9, note that Lupke (U.S. Patent 4,500,284) discloses that the air cylinder 54 is coupled to the cutter 40 in the mold tunnel (fig. 1). As to the rotary shaft extending through the die equipment and the cooling plug as recited by instant claim 7 and to the motor being located externally of the die equipment as recited by instant claim 8, it would have been obvious to an artisan of ordinary skill to shift the location of the power transfer means as long as the blower still operates as intended (See In re Japikse 86 USPQ 70).

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lupke et al. (U.S. Patent 5,525,289) in view of Lupke (U.S. Patent 4,500,284) and Thelin (U.S. Patent 4,897,093) as applied to claims 1-3 and 7-9 above, and further in view of Lutes et al. (U.S. Patent 3,997,292).

Lutes et al. (U.S. Patent 3,997,292) disclose a blower that includes a bladed wheel.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus by replacing the rotor with a bladed wheel because it is notoriously well known and conventional in the blower art that a

Art Unit: 1722

bladed wheel can be used as a blower as disclosed by Lutes et al. (U.S. Patent 3,997,292).

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lupke et al. (U.S. Patent 5,525,289) in view of Lupke (U.S. Patent 4,500,284) and Thelin (U.S. Patent 4,897,093) as applied to claims 1-3 and 7-9 above, and further in view of Lupke et al. (U.S. Patent 4,510,013).

Lupke et al. (U.S. Patent 4,510,013) disclose an atomizer 62 with a water supply for adding water to the air in a mold tunnel for forming a pipe downstream of a cooling plug 70 to promote cooling of the pipe after it has been formed (col. 6, lines 4-10).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with an atomizer for adding water to the air in the mold tunnel because such a modification would promote cooling of the pipe after it has been formed as disclosed by Lupke et al. (U.S. Patent 4,510,013).

Allowable Subject Matter

15. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or reasonably suggest an apparatus as

Art Unit: 1722

recited by instant claims 5 and 6, particularly including the rotor including the plurality of blades having the inner and outer blade portions, each of the blades being mounted at the inner blade portions to the common mounting shaft for rotating the blades, the inner and outer blade portions being arranged such that the outer blade portions provide greater positive air pressure than the inner portions to produce the low pressure air draw at the inner blade portions; or an apparatus as recited by instant claim 10, particularly including the rotor being driven by the water turbine adjacent the rotor in the mold tunnel, the transfer member (power transfer) including the flow channel through the die equipment and the cooling plug, the flow channel delivering water under pressure from the source of pressurized water externally of the die equipment to the water turbine.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lupke et al. (U.S. Patent 4,136,143), Nordstrom (U.S. Patent 4,710,337), Vanderwoude (U.S. Patent 5,028,376) and Kirjavainen et al. (U.S. Patent 6,551,534) are cited as of interest to show the state of the art.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone


Art Unit: 1722

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JL

JL


ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300, 200
6/25/00